

ORIGINAL ARTICLE

Sentiment analysis of public opinion on public housing savings policy (Tapera) on social media “X”

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Abstract

This study aims to analyze public sentiment towards the People's Housing Savings (TAPERA) policy on social media platform X (formerly Twitter). Responses to the Tapera policy can reflect the level of public trust in the government and the agency that manages Tapera. Sentiment analysis can provide an overview of this trust. This study uses a quantitative method with sentiment analysis techniques to measure public reactions based on comments on platform X. Data were collected from several comments related to the TAPERA policy and analyzed using the confusion matrix validation technique to ensure the accuracy of the results. The results showed that more than 90% of public sentiment towards the TAPERA policy was negative. This negative sentiment was mostly triggered by public concerns about salary cuts that were considered burdensome and low trust in the government's ability to manage the funds in a transparent and accountable manner. These findings emphasize the importance of transparency, effective communication, and public participation in the formulation of public policy. These findings are expected to provide insight for stakeholders in formulating policies that are more responsive to the needs and aspirations of the community.

Keywords

TAPERA, Sentiment Analysis, Social Media, X, Public Policy, Transparency, Community Participation

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1 | INTRODUCTION

Twitter or currently renamed X is one of the social media platforms that contains various kinds of information (Ke et al., 2017; Zubiaga et al., 2015). In addition, on the X platform, users can freely express their opinions about something (Salminen et al., 2020). One of the main features of the X platform is tweets, from these tweets users can share information with each other, argue with each other, and comment on something (Boyd et al., 2010; Syn & Oh, 2015). One example of a tweet that was widely discussed on the X application was the issue related to the Public Housing Savings (Tapera) policy planned by the government, various responses were issued by the public, there were people who were pro but not a few people who were against the policy.

This policy is actually not new, because it has been established since 2016 (Rangkuti, 2024). The first legal basis for Tapera is Law No. 24 of 2016 concerning Public Housing Savings. Furthermore, Government Regulation (PP) No. 25 of 2020 was issued as a refinement of the Law, which was then replaced by PP No. 21 of 2024 (Kencana, 2024). This last PP is the one that is controversial in the current implementation of Tapera, because the Tapera deduction is 3% of the worker's salary, with a breakdown of 2.5% borne by the worker and 0.5% borne by the employer. Meanwhile, for independent workers or freelancers, the 3% amount is fully borne by the worker (Juanda, 2024). Some public comments on the X platform regarding the TAPERA policy are as follows:

"It's getting more and more ridiculous. Why not try using PP No. 25 of 2020 concerning Tapera. Workers' salaries are cut by 3% every month. For home savings. MANDATORY, for ASN or PRIVATE! How long will it last? Paying off millions of house installments per month takes a long time, let alone a 3% discount." (@mazzini_gsp, 2024).

"That's not how it's calculated. How can a business strategy account follow simple arithmetic? There is something called compound interest. Tapera membership money will definitely be invested in fixed and safe income instruments. Such as Government Securities (SUN) or other bonds with an AAA rating. The return is around 5-6%, or even more. If you calculate the yield using chattgpt or Gemini. For example, using a salary reference of 10 million, then the savings are 300 thousand. If 20 years can get almost 150 million. Still not enough? Yes! But it cannot be denied that this is very helpful. If you want it to be big, just add the value. That is very acceptable." (@TarykoL, 2024).

The comments show the pros and cons between social media users X or the wider community, this leads to the assumption that this policy invites deep controversy and is interesting to study further. Nasution (2021) examines whether the formation and implementation of the Tapera Law are in accordance with the principles of good governance and provide benefits to the community, or whether it has created new problems that need to be fixed by the government. Then, Tania et al. (2021) examined whether the Tapera Government Regulation issued during the COVID-19 Pandemic had fulfilled the principles of progressive law that aimed to improve the welfare and happiness of the community, or actually burdened the community in the midst of difficult economic conditions due to the pandemic. Asril et al. (2022) provided input or contributions related to the regulation and implementation of the implementation of public housing savings in order to meet housing needs, especially for low-income people. Likewise, De (2024) provided an understanding and participation of the community in the TAPERA program, although there were still several challenges such as low financial literacy, limited access to banking, and the economic conditions of the community. Finally, Putra et al. (2019) examined the implementation of Tapera as a housing financing solution for MBR, both in the national and regional contexts in DKI Jakarta, and provided recommendations for improving its implementation in the future. Our research focuses on public sentiment towards the TAPERA policy, in addition, the difference between this research and subsequent research is that the research we conducted also focuses on finding out how much influence public comments, especially on the X platform, have on the government's postponement of the TAPERA policy.

The main objective of this study is to determine whether comments submitted by the public, especially on platform X, influence the government's decision to postpone the TAPERA policy. This study also aims to provide an understanding of the influence of people's voices on policies issued by the government. Thus, the results of the study are expected to provide knowledge for stakeholders in formulating policies to always involve or pay attention to the voice of the people.

2 | METHODS

This study will use a quantitative method because it focuses on measuring public sentiment towards the Tapera policy (Bungin 2011 in Herawati & Widiatoro, 2020). This method is used by researchers to explore the Tapera policy, public sentiment towards the policy, pros, cons, or neutral, in addition this method is also used to see whether public sentiment influences the government in formulating, reviewing, or even postponing the Tapera policy.

This study uses sentiment analysis techniques (Manning & Schutze, 1999), where this technique is used to analyze data in the form of text to determine what public sentiment is like towards the Tapera policy. The data that has been collected will be validated using the Confusion Matrix validation technique (Han & Kamber, 2006). This study focuses on public response, especially on platform X, to the Tapera policy. With a special focus on the influence of public sentiment on further actions taken by the government, be it delaying, reviewing, or even canceling the policy. We limit the scope of the study to platform X (Hussein, 2018; Medhat et al., 2014a; Wankhade et al., 2022).

3 | RESULTS AND DISCUSSION

3.1 | TAPERA Policy

People's Housing Savings (Tapera) is a savings made by Participants periodically within a certain period of time that can only be used for housing financing and/or returned along with the results of its fertilization after the membership ends (Gagundali, 2020), the Tapera policy made by the government is used as a means of saving to buy a house, the main target of which is low-income people. Tapera is a policy issued by the government to collect and provide sustainable long-term low-cost funds for housing financing in order to meet the need for decent and affordable housing for participants who follow the Tapera policy (Tania et al., 2021), this policy also makes it easier for people to buy a house. Tapera management is carried out by a special agency that handles the policy, namely the Tapera Management Agency or often called BP Tapera (Utami, 2022), BP Tapera is the one that handles all matters related to the Tapera policy from management to supervision.

In BP Tapera (2024) "Tapera Management includes three parts, including the first is Tapera Fund Mobilization, Tapera fund mobilization is an activity of collecting funds from Participants consisting of workers and independent workers. The funds collected will be administered by the Custodian Bank. Tapera's fund sources come from participant savings and other sources of funds, then the second is Tapera Fund Fertilization, fund fertilization is carried out in order to increase the value of participants' Tapera funds. These funds are managed and invested by the Custodian Bank and Investment Manager supervised by the OJK and BP Tapera. Tapera funds are invested in bank deposits, government bonds/sukuk, regional bonds/sukuk, securities in the housing and residential areas sector, and other forms of safe and profitable investments in accordance with the mandate of the Tapera Law. These funds are managed with conventional and sharia principles according to the choice of each Participant, and the last is Tapera Fund Utilization, all Participants will receive savings benefits along with the results of their fertilization which can be withdrawn when the participation period ends. All participants who are classified as low-income people and meet the eligibility requirements are entitled to receive housing financing benefits. Housing financing benefits for MBR participants consist of Home Ownership Credit (KPR), Home Building Credit (KBR), and Home Renovation Credit (KRR)", Every Tapera user needs to know the Tapera system, its benefits, and how the money is handled. To gain public support for the Tapera strategy, it is very important to prioritize the implementation of transparency and communication strategies. Strict supervision by BP Tapera and OJK is needed to ensure that funds are handled properly and in accordance with applicable laws. This will reduce the possibility of corruption involving Tapera funds. Management of funds by the Custodian Bank must also be effective and transparent, Tapera participants must receive clear reports on the condition and development of their assets. For MBR, the application and assistance process must be easy and straightforward to maximize accessibility to housing financing benefits.

Indeed, in the management of Tapera policies, strict supervision must be carried out to avoid errors or misuse, this statement is reinforced by the statement in Nurdin (2017). In the General Provisions (2014) Law No. 4 of 2016 Article 69, supervision of BP Tapera is carried out by the Tapera Committee and the Financial Services Authority, then supervision of Investment Managers, Custodian Banks, and Banks or Financing Companies, is carried out by BP Tapera and the Financial Services Authority in accordance with statutory provisions. In addition, according

to Law No. 4 of 2016 article 71, the Audit Board of Indonesia can also conduct audits of the implementation of Tapera in accordance with its authority. In its implementation, this policy has a lot of potential to be misused by certain individuals, therefore the government should be able to do various ways so that the implementation of the Tapera policy is in accordance with its objectives, the methods that can be done include the government must strengthen regulations with stricter rules and clear sanctions for violators. Strict law enforcement against corruptors will provide a deterrent effect and reduce the risk of deviation. Clear and firm regulations are the main foundation for maintaining the integrity of this program. Second, the formation of an independent monitoring team consisting of academics, NGOs, and community leaders. This team must have full access to data and information related to the program, so that it can monitor the implementation of Tapera effectively and objectively. Third, routine audits by the BPK must be carried out periodically to ensure that Tapera funds are used according to their intended use. The audit results must be published and easily accessible to the public, so that transparency and accountability in the management of Tapera funds can be maintained. The implementation of these steps is expected to make the Tapera program more transparent, accountable, and free from corrupt practices, so that the noble goal of this program is to provide maximum benefits for low-income communities and create a fairer and more equitable housing system in Indonesia (Wahyudi, 2024).

Every policy made by the government must be right and also provide great benefits to the community, this statement is reinforced by the statement of the Chairperson of the Indonesian House of Representatives, Puan Maharani in (DPR RI, 2021). The benefits expected with the Tapera policy include easier access to housing (Santoso, 2024), with Tapera, low to middle-income people are expected to have easier access to housing finance. This program is expected to reduce the burden of home purchase costs which are often the main obstacle. In addition, Tapera also encourages home ownership, this program aims to increase the number of people who own their own homes, which in turn is expected to improve the quality of life and welfare of the community. Tapera also supports the economy, with increasing home purchases, the construction and property sectors are expected to experience growth, which can have a positive effect on the economy as a whole. The Tapera program actually has great potential to improve people's welfare through the provision of decent housing. However, this potential could disappear amidst the shadow of corruption and irregularities if steps are not taken immediately. In order for Tapera to truly realize its hopes as a solution to people's housing, serious efforts are needed to overcome these various challenges. Tapera has a great opportunity to be more than just a housing program (Gustanto, 2024), the Tapera Program could be a successful government program in providing decent housing for the community, and show a concrete example that integrity and effectiveness can run effectively. The Tapera policy is at risk of becoming a field of corruption, and ending up breaking the hopes of millions of people for decent housing or housing if it is not managed and supervised properly by the policy implementers.

3.2 | Public Sentiment towards TAPERA Policy

According to Medhat et al., (2014b) in Hokijuliandy et al. (2023), sentiment analysis or opinion mining is the computational study of people's opinions, attitudes, and emotions towards an entity. Sentiment analysis is broadly used to identify whether a text has a positive, negative, or neutral content. This process involves recognizing and extracting emotional information from text, which often comes from product reviews, social media posts, news articles, and various other forms of online communication. Conducting sentiment analysis using text analytics can help to collect various opinions from sources on the internet and social media. The purpose of this analysis is to gain insight into consumer views on social media. Thus, companies can receive feedback from consumers more effectively and efficiently (Himma, 2022). Data collection regarding the responses and opinions of the Indonesian people regarding public housing savings was carried out through the social media Twitter, by collecting related tweets.

Table 1. Public Comments on Social Media X Regarding TAPERA

Account Name	Comments	Categories
@The sejati	Blues Instead of Tapera, it's better if I borrow from the bank to build a small house. After that, I'll make a monthly deposit. Instead of Tapera, I don't know where the money goes	Negative
@Heri Listianto	Even my salary, which is not much, is cut 😞	Negative
@mirandacis	salary is not much but always cut 😊	Negative
@ZionTui	Believe me, after this program has been running for 2-3 years, there will definitely be officials who are arrested because of Tapera, food prices are increasing, Tapera cuts are coming again, please Mr. @jokowi, review this PP, if necessary, cancel it, it is not a priority for the Indonesian people.	Negative
@NaaNatul	This meager salary has to fight with these unclear contributions, oh my God. I already have a house, oh the one above!	Negative
@kyungrychan	If you don't want to, that's okay, right?	Negative
@txtdariakyu	What will the Tapera be used for? Is it true that the house will be able to be occupied, so do we have to wait for retirement? Is this just the thinking of high-ranking officials?	Negative
@BoyMantouw	Tapera is enjoyed when you retire and have a house, you can go on vacation around the world. Just look at the cruise ships that go around the world, filled with old people who have retired. Let's make it a success to save for old age	Positive
@embun_ubi	What about those who already have a house? It's such a shame that you have to keep saving 😊	Negative
@deexxx25	I don't agree with this program, there are some who already have a house or live with their parents. If it's an option, that's fine, it doesn't have to be mandatory, this is going to be like BPJS (Jamsostek), just yesterday Jamsostek's corruption was no joke.	Negative

After collecting data on several responses and public opinions regarding the People's Housing Savings policy or commonly known as TAPERA on social media Twitter or X For the keywords "Tapera" and "Tapera comments", the types of tweets taken are tweets that appear when searching for these keywords in the 'search' column on the Twitter application. The Tapera program is considered an additional burden. The public questions the clarity of this rule. The public also expressed objections to the Tapera contributions that must be borne by workers. These funds should have been taken from taxes that have been paid by the community (Matatula, 2024). It can be concluded based on Table 1. that there are more negative comments than positive ones, indicating that the policy on People's Housing Savings (TAPERA) is not welcomed by the public because it is considered detrimental, especially for people with low salaries or laborers. In addition, another cause is the low level of public trust in the savings or insurance fund management system, which is further exacerbated by the many legal cases that have emerged and involved public fund management agencies, thus raising concerns among the public about the security and reliability of their fund management (Maharani & Alexander, 2024). The many cases of corruption that have occurred in government have made the public feel doubtful about new policies issued by the government, especially those related to the management and use of funds, so that the public tends to doubt the integrity and transparency in the implementation of these policies.

Hundreds of workers held a demonstration in front of the State Palace to reject the obligation to pay People's Housing Savings or Tapera contributions. They argued that requiring all workers to pay Tapera contributions was an unfair act, because most of the burden of these contributions was borne by workers, which was considered to be increasingly burdensome for groups of workers who already had a high economic burden

(Arief, 2024). The new policy made regarding TAPERA made the public come down to voice the policy that was considered burdensome. The public also voiced that this policy did not take into account the financial conditions of workers and lower-level employees who generally had mediocre incomes and had to meet various other basic needs. In addition, the public criticized the government for not providing adequate space for dialogue with community representatives before establishing this policy. They demanded that the government re-evaluate the policy by considering the fairness and economic capabilities of workers, and asked for transparency and active involvement from various related parties in the decision-making process. From the demonstration, the public hoped that the TAPERA policy would be canceled or reviewed, not just postponed, the problem was not about the postponement, but about listening to the aspirations of various parties to improve ministerial regulations. The government sees criticism and rejection of Tapera as input that needs to be considered. In a press interview on Friday, June 7, 2024, Moeldoko said in (Kumparan, 2024) "In running the country, we cannot act unilaterally. Every party has a view that needs to be heard. This country does not reject criticism, and there is still time to provide input and consult before the Tapera savings levy comes into effect in 2027." In addition, the government must also ensure that the distribution of TAPERA benefits is evenly distributed throughout society. This program must be designed in such a way that all levels of society, including the most vulnerable and poor, can feel the benefits. To achieve this, strict supervision and transparency are needed in the implementation of the program, as well as an effective mechanism to handle complaints and problems that may arise (De, 2024). Therefore, the government must review this policy so that all people feel the benefits of the TAPERA policy and do not feel burdened.

3.3 | The Influence of Public Sentiment on Government Decisions regarding TAPERA Policy

The role of the media in shaping public opinion through political communication strategies is something that cannot be underestimated. Using various techniques, the media has a significant impact on the public's perspective on political issues and policies. The emergence of social media has further strengthened the media's influence in shaping public opinion, but has also brought new challenges such as the spread of misinformation and fake news. Ethical considerations play an important role in how the media shapes public opinion. The media has a responsibility to provide fair, accurate, and balanced coverage of various political issues, and to avoid partisan bias or sensationalism. Media literacy and fact-checking are becoming increasingly crucial in assessing the credibility of information disseminated through social media. Understanding the various roles of the media in shaping public opinion is essential to encouraging informed and democratic decision-making in society (Talks, 2024). The development of information and communication technology has brought about major changes in various aspects of life, including politics. One example is the presence of social media which has changed the way people interact and communicate. In a political context, social media is now a very influential tool in shaping public opinion, including in new policies. Indonesia, as the country with the most social media users in Southeast Asia, is no exception (Ridwan, 2024).

The mass media plays a very important role in shaping public sentiment towards something, this statement is reinforced by the writing in Fadli (2017) "the mass media is a socialization agent that has an impact on the formation of public political thinking and behavior". In terms of formulating government policies, the government must first consider the public's response to this, this statement is reinforced by the writing in (Suprawoto, 2018) "government public relations must be able to hear public aspirations as input and considerations in making policies", if the public agrees with the formulation of the policy, the government can continue the policy formulation process to completion, but if many people disagree with the formulation of the policy issued by the government, the government must consider, review, and also pay attention to the reasons why the public does not agree with the policy formulated by the government. Likewise in the Tapera Policy, in our findings, public sentiment towards the latest formulation of the Tapera policy, many people disagree, some of the reasons why people disagree with the policy include, First, lack of understanding and socialization, many people do not fully understand how Tapera operates, its benefits, and how the funds are managed and distributed later, Second, the lack of effective socialization from the government which causes people to refuse to believe in this Tapera policy, Third, concerns about fund management, people are worried about how their funds will be managed and supervised, the many cases of corruption and misuse of funds in the past have raised doubts among the public, so that people doubt

whether Tapera funds will be managed transparently and accountably, Fourth additional financial burden, mandatory contributions to Tapera are considered an additional financial burden for workers, especially for those with low incomes or who are already struggling with daily living expenses. Workers feel that additional deductions from their salaries will worsen their financial condition, Fifth, the government's explanation regarding the benefits received is still poorly understood by the community, if the benefits received by Tapera participants are unclear or the process of obtaining these benefits is too complicated, the community will feel that the benefits of participating in Tapera are not commensurate with the contributions they pay, Sixth, negative experiences with similar programs, People who have had negative experiences with previous government programs are skeptical of new programs like Tapera. Public trust needs to be rebuilt through successful implementation and consistent transparency (Anggela, 2024). Therefore, if the government still wants to continue the Tapera policy, the implementation of this policy must be made as transparent as possible with good and proper supervision and management.

Because the Tapera policy has received a lot of criticism, especially on social media, the government has responded to the criticisms conveyed by the public. Response from Hilmy Muhammad, member of Commission I of the DPD RI in a press interview on Thursday, May 30, 2024 "The policy is indeed good, encouraging home ownership for the community, but in our opinion the method is not quite right. What has been implemented previously needs to be evaluated first, including the level of public satisfaction," (Rahmat & Firdaus, 2024). The strong public rejection of this program requires the government to pay more attention to the decisions taken regarding this policy, the government must pay attention to the reality of the current world of work, where jobs are increasingly difficult to find, there are age restrictions for workers, unclear work contracts that can be terminated at any time, low wages, and prices of necessities that continue to increase. In addition, workers are also burdened with contributions and other taxes that are quite burdensome. Given this situation, the people hope that the government will listen to the aspirations of workers regarding the Tapera policy, conduct an evaluation, and review the policy. This hope aims to make the policy more accommodating and in accordance with the needs of workers.

4 | CONCLUSION

The Public Housing Savings (Tapera) policy initiated by the Government was initially intended to help low-income people get houses, but in its implementation this policy generated a lot of reactions and comments from the public, especially on social media. The goal of the Tapera policy is to increase the number of homeownership and public welfare. However, several problems have emerged. One of them is concerns about the integrity and transparency of fund management, as well as additional financial consequences for low-income employees. Many people do not trust the government's performance in managing public funds due to corruption cases that occurred in the past and the lack of transparency from the government in managing funds entrusted by the public.

This negative sentiment is reflected in the public response that we studied on social media X, which showed dislike for the obligation to pay Tapera contributions and concerns about improper fund management. However, there were also several positive voices that supported the policy's goal of increasing homeownership among the public. The government needs to seriously consider this negative sentiment as input for policy improvement. Efforts are needed to increase public understanding of the benefits of Tapera, improve transparency in fund management, and reconsider the contribution mechanism to be fairer for all parties. This is in line with the principle that successful public policies must be based on well-accommodated community responses and aspirations.

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The authors declare that has no relevant or material financial interests that relate to the research described in this paper.

Data Availability Statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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